## VOLUME 3 1986

## SUBJECT INDEX


Abstinence, 223
  alcoholism treatment
  biological markers
  gamma glutamyl transferase (γGT)
  mean corpuscular volume (MCV)
Acetaldehyde
  acetate, 163
  alcohol pathogenesis, 239
  alcohol preference, 239
  aldehyde dehydrogenase (ADH) levels, 215
  antioxidant sensitive respiration, 163
  apnea, 317
  bradycardia, 317
  cardiorespiratory inhibitory reflex, 317
  cold exposure, 351
  diethylmaleate treatment effects, 163
  endogenous ethanol metabolism, 239
  ethanol, 163, 215, 351
  fasting effects, 163
  glutathione depletion, 163
  guinea pigs, 351
  human studies, male, 215
  hypotension, 317
  intravenous administration, 317
  perfused liver, 163
  serum catecholamines, 351
  urinary salsolinol, 215
  vagotomy, 317
Acetate, 163
  acetaldehyde
  antioxidant sensitive respiration
  diethylmaleate treatment effects
  ethanol
  fasting effects
  glutathione depletion
  perfused liver
$^{13}$C-Acetate, 227
  aldehyde dehydrogenase deficiency
  $^{13}$C-ethanol
  human studies
Acetate activation, 63
  adenosine monophosphate
  ethanol metabolism
  mitochondrial AMP accumulation
Adenosine monophosphate, 63
  acetate activation
  ethanol metabolism
  mitochondrial AMP accumulation
Affective disorders, 97
  alcoholism
  lithium orotate
  related conditions
Age differences
  alcohol, 291
  alcoholism, 89
  central cholinergic neurotransmission, 291
  grief awareness, 89
  human studies, 89
  inbred strains, 291
  length of illness, 89
  long-term intoxication, 291
  loss identification, 89
  sex differences, 89
  strain differences, 291
Aging, 345
  alcohol
  chronic alcohol intoxication
  dopamine
  inbred strains
  serotonin
  strain differences
  tolerance
Alcohol
  age differences, 291
  aging, 345
  alcohol dependence, 361
  alcohol preference, 361
  alcohol withdrawal, 371
  ambient temperature, preferred, 339
  blood alcohol concentration, 185, 269
  brain development, 269
  catecholamines, 371
  central cholinergic neurotransmission, 291
  chronic alcohol intoxication, 345
  colonic temperature, 339
  conditioned aversion, 27
  consumption patterns, 193
  dopamine, 345
  dose-differences, 77
  drinking, 77, 383
  evaporative water loss, 339
  fetal alcohol syndrome (FAS), 269
  gustatory neocortex, 27
  human studies, alcoholics, 371
  human studies, females, 193
  inbred strains, 291, 345
  individual differences, 371
  long-term intoxication, 291
  marihuana, 193
  metabolic rate, 339
  microencephaly, 185, 269
  monkeys, 383
  naltrexone, 383
  nose poking, 201
  olfactory bulbs, 27
  preferred alcohol concentration, 383
  prenatal exposure, 201
  salsolinol, 371
  schedule-induced polydipsia, 361
  serotonin, 345
  sex differences, 185
  sexual activity, 193
  sleep-wake patterns, 77
  strain differences, 77, 291, 345
  temporal concordance, 193
  thermoregulation, autonomic, 339
  thermoregulation, behavioral, 339
  third trimester equivalent, 185
  tolerance, 345
  urinary secretion, 371
  voluntary alcohol intake, 383
Alcohol abuse detection, 287
  alcoholism diagnosing
  human studies
  trauma questionnaire
Alcohol consumption, 73
  blood ethanol
  circadian rhythms
  genetic breeding
Alcohol dehydrogenase
  aldehyde dehydrogenase, 107, 131
  1,4 butanediol, 367
  carbamazepine, 131
  degradation, 367
  ethanol, 131, 367
  γ-hydroxybutyric acid, 367
  in vitro, 367
  lactate dehydrogenase, 107, 131
  lithium, 107
  maternal exposure, 107
  neonates, 107
  sex differences, 131
Alcohol dependence
  alcohol, 361
  alcohol preference, 361
  schedule-induced polydipsia, 33, 361
  water-electrolyte status, 33
Alcohol, maternally fed, 169
  ethanol vapor
  lactation
  postnatal development
Alcohol pathogenesis, 239
  acetaldehyde
  alcohol preference
  endogenous ethanol metabolism
Alcohol preference
  acetaldehyde, 239
  alcohol, 361
  alcohol dependence, 361
  alcohol pathogenesis, 239
  endogenous ethanol metabolism, 239
  lactation, 19
  pre-pregnancy alcohol, 19
  schedule-induced polydipsia, 361
Alcohol withdrawal
  alcohol, 371
  carbamazepine, 113
  catecholamines, 371
  human studies, alcoholics, 371
  individual differences, 371
  pharmacological intervention, 113
  salsolinol, 371
  side effects, 113
  urinary secretion, 371
Alcoholism
  affective disorders, 97
  age differences, 89
  biological aspects, 83
  biological markers, 11
  diagnosis, 83
  drinking practice, 175
  epidemiology, 83
  glyoxalase I, 11
  grief awareness, 89
  grieving process, 95
  hopelessness, 93

human studies, 11, 89, 93, 95
human studies, male, 175
length of illness, 89
lithium orotate, 97
loss identification, 89, 95
meaningful present, 93
neuropsychological performance, 175
phenotypes, 11
related conditions, 97
sex differences, 89
social drinkers, 175
Alcoholism diagnosing, 287
alcohol abuse detection
human studies
trauma questionnaire
Alcoholism treatment, 223
abstinence
biological markers
gamma glutamal transferase (γGT)
mean corpuscular volume (MCV)
Aldehyde dehydrogenase
acetaldehyde levels, 215
alcohol dehydrogenase, 107, 131
carbamazepine, 131
ethanol, 131, 215
human studies, male, 215
lactate dehydrogenase, 107, 131
lithium, 107
maternal exposure, 107
neonates, 107
sex differences, 131
urinary salsolinol, 215
Aldehyde dehydrogenase deficiency, 227
$^{13}$C-acetate
$^{13}$C-ethanol
human studies
Ambient temperature, preferred, 339
alcohol
colonic temperature
evaporated water loss
metabolic rate
thermoregulation, autonomic
thermoregulation, behavioral
Aminotriazole pretreatment, 181
ethanol blood levels
intraperitoneal administration
Angiotensin converting enzyme (ACE), 357
human studies, alcoholics
serum levels
Antioxidant sensitive respiration, 163
acetaldehyde
acetate
diethylmaleate treatment effects
ethanol
fasting effects
glutathione depletion
perfused liver
Apnea, 317
acetaldehyde
bradycardia
cardiorespiratory inhibitory reflex
hypotension
intravenous administration
vagotomy
Apparatus
lickometers, 73
microcomputers, 73

Baboons, 205
liver ALDH, baboons
subcellular fractionation
Bilirubin glucuronidation, 139
ethanol
liver
maternal intake
Biological aspects, 83
alcoholism
diagnosis
epidemiology
Biological markers
abstinence, 223
alcoholism, 11
alcoholism treatment, 223
gamma glutamyl transferase (γGT), 223
glyoxalase I, 11
human studies, 11
mean corpuscular volume (MCV), 223
phenotypes, 11
Blood alcohol concentration
alcohol, 185, 269
alcohol consumption, 73
brain development, 269
circadian rhythms, 73
fetal alcohol syndrome (FAS), 269
genetic breeding, 73
microencephaly, 185, 269
sex differences, 185
third trimester equivalent, 185
Blood gas concentration, 5
ethanol
body temperature
respiration
Blood serum, 135
carbamazepine
electrochemical detection
high pressure liquid chromatography (HPLC)
tricyclic antidepressants
Body temperature, 5
blood gas concentration
ethanol
respiration
Bradycardia, 317
acetaldehyde
cardiorespiratory inhibitory reflex
hypotension
intravenous administration
vagotomy
Brain
cerebellum, 233
cortex, 233
hippocampus, 233, 291, 345
hypothalamus, 249, 351
lateral cerebral ventricle, 273
nucleus of the tractus solitarus, 55
striatum, 233, 291, 345
Brain development, 269
alcohol
blood alcohol concentration (BAC)
fetal alcohol syndrome (FAS)
microencephaly
1,4-Butanediol, 367
alcohol dehydrogenase
degradation
ethanol
γ-hydroxybutyric acid
in vitro

Calcium antagonism, 273
$Ca^{++}$-channel blockade
ethanol
poikilothermia
thermoregulation
Calcium-calmodulin phosphorylation, 233
ethanol
protein kinase
$Ca^{++}$-channel blockade, 273
calcium antagonism
ethanol
poikilothermia
thermoregulation
Carbamazepine
alcohol dehydrogenase, 131
alcohol withdrawal, 113
aldehyde dehydrogenase, 131
blood serum, 135
electrochemical detection, 135
ethanol, 131
high pressure liquid chromatography (HPLC), 135
lactate dehydrogenase, 131
pharmacological intervention, 113
sex differences, 131
side effects, 113
tricyclic antidepressants, 135
Carbon monoxide, 157
coronary flow
hypoxia
isolated heart
nicotine
Cardiorespiratory inhibitory reflex, 317
acetaldehyde
apnea
bradycardia
hypotension
intravenous administration
vagotomy
Catecholamines, 371
alcohol
alcohol withdrawal
human studies, alcoholics
individual differences
salsolinol
urinary secretion
Cell development, 261
ethanol
organ growth
perinatal exposure
Central cholinergic neurotransmission, 291
age differences
alcohol
inbred strains
long-term intoxication
strain differences
Cerebral metabolism, 23
dose effects
ethanol
time effects
Chlordiazepoxide, 309
cross-dependence
ethanol dependence
Chronic alcohol intoxication, 345
aging
alcohol
dopamine
inbred strains
serotonin
strain differences
tolerance
Circadian rhythms, 73
alcohol consumption
blood ethanol
genetic breeding
Cold exposure, 351
acetaldehyde

ethanol
guinea pigs
serum catecholamines
Colonic temperature, 339
alcohol
ambient temperature, preferred
evaporative water loss
metabolic rate
thermoregulation, autonomic
thermoregulation, behavioral
Conditioned aversion, 27
alcohol
gustatory neocortex
olfactory bulbs
Consumption patterns, 193
alcohol
human studies, females
marihuana
sexual activity
temporal concordance
Coronary flow, 157
carbon monoxide
hypoxia
isolated heart
nicotine
Corticosterone response, 255
ethanol
morphine
neonates
ontogeny
pituitary-adrenal system
prenatal exposure
Cross-dependence, 309
chlordiazepoxide
ethanol-dependence

Degradation, 367
alcohol dehydrogenase
1,4 butanediol
ethanol
γ-hydroxybutyric acid
in vitro
Developing fetus, 101
ethanol
lithium
teratogenic effects
Diagnosis, 83
alcoholism
biological aspects
epidemiology
Dietary interrelationships, 145
ethanol
pregnancy
zinc
Diethylmaleate treatment effects, 163
acetaldehyde
acetate
antioxidant sensitive respiration
ethanol
fasting effects
glutathione depletion
perfused liver
Divalent cation, 69
ethanol
sleeping time
Dopamine, 345
aging
alcohol
chronic alcohol intoxication
inbred strains
serotonin
strain differences
tolerance
Dose-differences, 77
alcohol
drinking
sleep-wake patterns
strain differences
Dose effects, 23
cerebral metabolism
ethanol
time effects
Drinking
alcohol, 15, 77, 131, 303, 383
alcohol addiction, 39
alcohol dehydrogenase, 131
aldehyde dehydrogenase, 131
carbamazepine, 131
dose-differences, 77
drug interactions, 39, 303
lactate dehydrogenase, 131
methadone, 303
monkeys, 383
naltrexone, 383
opioid receptor antagonism, 39
pentobarbital, 303
pimozide, 303
preferred alcohol concentration, 383
sex differences, 131
sleep-wake patterns, 77
strain differences, 77
striatal dopamine, 15
voluntary alcohol intake, 383
Drinking practice, 175
alcoholism
human studies, male
neuropsychological performance
social drinks
Drug
acetaldehyde, 163, 317, 351
acetate, 163
$^{13}$C-acetate, 227
aminotriazole, 181
1,4 butanediol, 367
calmodulin, 69
carbamazepine, 131
carbon monoxide, 157
chlordiazepoxide, 309
p-chlorophenylalanine, 69
citalopram, 377
diethylmaleate, 163
dopamine (DA), 351
ethanol, 1, 5, 15, 19, 23, 27, 33, 39, 55, 63, 69, 77, 101, 131, 139, 145, 163, 169, 181, 185, 193, 201, 215, 233, 249, 255, 261, 269, 273, 283, 291, 299, 303, 331, 339, 345, 351, 357, 361, 367, 371, 383
$^{13}$C-ethanol, 227
GBR 12909, 377
lithium, 101, 107
lithium orotate, 97
maltose-dextrin, 1
marihuana, 193
methadone, 303
α-methyltyrosine, 69
morphine, 39, 255
MR 2266, 249
naloxone, 39, 249, 303
naltrexone, 383
nicotine, 157
nomifensine, 15
norepinephrine, 283
pentobarbital, 303
pimozide, 303
prazosin, 377
phenobarbital, 153
RO-15-1788, 309
talsupram, 377
verapamil, 273
zinc, 145
Drug interaction
drinking, 39, 303
ethanol, 303
ethanol addiction, 39
methadone, 303
opioid receptor antagonism, 39
pentobarbital, 303
pimozide, 303

Electrochemical detection, 135
blood serum
carbamazepine
high pressure liquid chromatography (HPLC)
tricyclic antidepressants
Endogenous ethanol metabolism, 239
acetaldehyde
alcohol pathogenesis
alcohol preference
Enriched environment, 299
ethanol
stress
ulcer formation
voluntary ethanol consumption
Epidemiology, 83
alcoholism
biological aspects
diagnosis
Ethanol
acetaldehyde, 163, 351
acetaldehyde levels, 215
acetate, 163
alcohol dehydrogenase, 131, 367
aldehyde dehydrogenase, 131, 215
antioxidant sensitive respiration, 163
bilirubin glucuronidation, 139
blood gas concentration, 5
body temperature, 5
1,4 butanediol, 367
$Ca^{++}$-channel blockade, 273
calcium antagonism, 273
calcium-calmodulin phosphorylation, 233
carbamazepine, 131
cell development, 261
cerebral metabolism, 23
cold exposure, 351
corticosterone response, 255
degradation, 367
developing fetus, 101
dietary interrelationships, 145
diethylmaleate treatment effects, 163
divalent cation, 69
dose effects, 23
drinking, 15, 303
drug interaction, 303
enriched environment, 299
fasting effects, 163
glutathione depletion, 163
guinea pigs, 351
human studies, 215
γ-hydroxybutyric acid, 367
hypothermia, 249
in vitro, 367
lactate dehydrogenase, 131

lithium, 101
liver, 139
maternal intake, 139
methadone, 303
morphine, 255
neonates, 255
neural responsivity, 55
ontogeny, 255
opiate kappa receptors, 249
organ growth, 261
pentobarbital, 303
perfused liver, 163
perinatal exposure, 261
pimozide, 303
pituitary-adrenal system, 255
poikilothermia, 273
pregnancy, 145
prenatal exposure, 255
protein kinase, 233
rats, alcohol-preferring, 331
respiration, 55
scheduled availability, 331
serum catecholamines, 351
sex differences, 131
sleeping time, 69
stress, 299
striatal dopamine, 15
taste aversion, 55
teratogenic effects, 101
thermoregulation, 273
time effects, 23
ulcer formation, 299
urinary salsolinol, 215
voluntary ethanol consumption, 299, 331
zinc, 145
C-Ethanol, 227
$^{13}$C-acetate
aldehyde dehydrogenase deficiency
Ethanol addiction, 39
drinking
drug interactions
opioid receptor antagonism
Ethanol blood levels, 181
aminotriazole pretreatment
intraperitoneal administration
Ethanol dependence, 309
chlordiazepoxide
cross-dependence
Ethanol diuresis, 283
norepinephrine
tolerance
Ethanol intake, 377
monoaminergic neurons
REM-sleep deprivation
Ethanol metabolism, 63
acetate activation
adenosine monophosphate
mitochondrial AMP accumulation
Ethanol vapor, 169
alcohol, maternally fed
lactation
postnatal development
Evaporative water loss, 339
alcohol
ambient temperature, preferred
colonic temperature
metabolic rate
thermoregulation, autonomic
thermoregulation, behavioral

Fasting effects, 163
acetaldehyde
acetate
antioxidant sensitive respiration
diethylmaleate treatment effects
ethanol
glutathione depletion
perfused liver
Fetal alcohol syndrome (FAS), 269
alcohol
blood alcohol concentration (BAC)
brain development
microencephaly

Gamma glutamyl transferase ($\gamma$GT), 223
abstinence
alcoholism treatment
biological markers
mean corpuscular volume (MCV)
Genetic breeding, 73
alcohol consumption
blood ethanol
circadian rhythms
$\gamma$-Glutamyl transpeptidase, 153
in utero
phenobarbital
Glutathione depletion, 163
acetaldehyde
acetate
antioxidant sensitive respiration
diethylmaleate treatment effects
ethanol
fasting effects
perfused liver
Glyoxalase I, 11
alcoholism
biological markers
human studies
phenotypes
Grief awareness, 89
age differences
alcoholism
human studies
length of illness
loss identification
sex differences
Grieving process, 95
alcoholism
human studies
loss identification
Guinea pigs, 351
acetaldehyde
cold exposure
ethanol
serum catecholamines
Gustatory neocortex, 27
alcohol
conditioned aversions
olfactory bulbs

High pressure liquid chromatography (HPLC), 135
blood serum
carbamazepine
electrochemical detection
tricyclic antidepressants
Hopelessness, 93
alcoholism
human studies
meaningul present

Hormone
epinephrine (E), 351
norepinephrine (NE), 351
Human studies
$^{13}$C-acetate, 227
age differences, 89
alcohol abuse detection, 287
alcoholism, 11, 89, 93, 95
alcoholism diagnosing, 287
aldehyde dehydrogenase deficiency, 227
biological markers, 11
$^{13}$C-ethanol, 227
glyoxalase I, 11
grief awareness, 89
grieving process, 95
hopelessness, 93
length of illness, 89
loss identification, 89, 95
meaningful present, 93
phenotypes, 11
sex differences, 89
trauma questionaire, 287
Human studies, alcoholics
alcohol, 371
alcohol withdrawal, 371
angiotensin converting enzyme (ACE), 357
catecholamines, 371
individual differences, 371
salsolinol, 371
serum levels, 357
urinary secretion, 371
Human studies, detoxified alcoholics, 323
memory, frequency of occurrence
memory, temporal order
Human studies, females, 193
alcohol
consumption patterns
marihuana
sexual activity
temporal concordance
Human studies, male
acetaldehyde levels, 215
alcoholism, 175
aldehyde dehydrogenase (ADH) levels, 215
drinking practice, 175
ethanol, 215
neuropsychological performance, 175
social drinkers, 175
urinary salsolinol, 215
$\gamma$-Hydroxybutyric acid, 367
alcohol dehydrogenase
1,4 butanediol
degradation
ethanol
in vitro
Hypotension, 317
acetaldehyde
apnea
bradycardia
cardiorespiratory inhibitory reflex
intravenous administration
vagotomy
Hypothermia, 249
ethanol
opiate kappa receptors
Hypoxia, 157
carbon monoxide
coronary flow
isolated heart
nicotine

Inbred strains
age differences, 291
aging, 345
alcohol, 291, 345
central cholinergic neurotransmission, 291
chronic alcohol intoxication, 345
dopamine, 345
long-term intoxication, 291
serotonin, 345
strain differences, 291, 345
tolerance, 345
Individual differences, 371
alcohol
alcohol withdrawal
catecholamines
human studies, alcoholics
salsolinol
urinary secretion
Intraperitoneal administration, 181
aminotriazole pretreatment
ethanol blood levels
Intravenous administration, 317
acetaldehyde
apnea
bradycardia
cardiorespiratory inhibitory reflex
hypotension
vagotomy
In utero, 153
γ-glutamyl transpeptidase
phenobarbital
In vitro, 367
alcohol dehydrogenase
1,4 butanediol
degradation
ethanol
γ-hydroxybutyric acid
Isolated heart, 157
carbon monoxide
coronary flow
hypoxia
nicotine

Lactate dehydrogenase
alcohol dehydrogenase, 107, 131
aldehyde dehydrogenase, 107, 131
carbamazepine, 131
ethanol, 131
lithium, 107
maternal exposure, 107
neonates, 107
sex differences, 131
Lactation
alcohol, maternally fed, 169
alcohol preference, 19
ethanol vapor, 169
postnatal development, 169
pre-pregnancy alcohol, 19
Length of illness, 89
age differences
alcoholism
grief awareness
human studies
loss identification
sex differences
Lithium
alcohol dehydrogenase, 107
aldehyde dehydrogenase, 107
developing fetus, 101
ethanol, 101
lactate dehydrogenase, 107
maternal exposure, 107
neonates, 107
teratogenic effects, 101
Lithium orotate, 97
affective disorders
alcoholism
related conditions
Liver, 139
bilirubin glucuromidation
ethanol
maternal intake
Liver ALDH, baboons, 205
baboons
subcellular fractionation
Long-term intoxication, 291
age differences
alcohol
central cholinergic neurotransmission
inbred strains
strain differences
Loss identification
age differences, 89
alcoholism, 89, 95
grief awareness, 89
grieving process, 95
human studies, 89, 95
length of illness, 89
sex differences, 89

Marihuana, 193
alcohol
consumption patterns
human studies, females
sexual activity
temporal concordance
Maternal exposure, 107
alcohol dehydrogenase
aldehyde dehydrogenase
lactate dehydrogenase
lithium
neonates
Maternal intake, 139
bilirubin glucuronidation
ethanol
liver
Mean corpuscular volume (MCV), 223
abstinence
alcoholism treatment
biological markers
gamma glutamyl transferase (γGT)
Meaningful present, 93
alcoholism
hopelessness
human studies
Memory, frequency of occurrence, 323
human studies, detoxified alcoholics
memory, temporal order
Memory, temporal order, 323
human studies, detoxified alcholics
memory, frequency of occurrence
Metabolic rate, 339
alcohol
ambient temperature, preferred
colonic temperature
evaporative water loss
thermoregulation, autonomic
thermoregulation, behavioral
Methadone, 303
drinking
drug interaction
ethanol
pentobarbital
pimozide
Method
breath test, 227
gas chromatography, 367
head-space chromatography, 367
high performance liquid chromatography with electrochemical detection, 135, 351, 371
Microencephaly
alcohol, 185, 269
blood alcohol concentration, 185, 269
brain development, 269
fetal alcohol syndrome (FAS), 269
sex differences, 185
third trimester equivalent, 185
Mitochondrial AMP accumulation, 63
acetate activation
adenosine monophosphate
ethanol metabolism
Monkeys, 383
alcohol
drinking
naltrexone
preferred alcohol concentration
voluntary alcohol intake
Monoaminergic neurons, 377
ethanol intake
REM-sleep deprivation
Morphine, 255
corticosterone response
ethanol
neonates
ontogeny
pituitary-adrenal system
prenatal exposure

Naltrexone, 383
alcohol
drinking
monkeys
preferred alcohol concentration
voluntary alcohol intake
Neonates
alcohol dehydrogenase, 107
aldehyde dehydrogenase, 107
corticosterone response, 255
ethanol, 255
lactate dehydrogenase, 107
lithium, 107
maternal exposure, 107
morphine, 255
ontogeny, 255
pituitary-adrenal system, 255
prenatal exposure, 255
Neural responsivity, 55
ethyl alcohol
taste aversion
Neuropsychological performance, 175
alcoholism
drinking practice
human studies, male
social drinkers
Nicotine, 157
carbon monoxide
coronary flow
hypoxia
isolated heart

Norepinephrine, 283
ethanol diuresis
tolerance
Nose poking, 201
alcohol
prenatal exposure

Olfactory bulbs, 27
alcohol
conditioned aversions
gustatory neocortex
Ontogeny, 255
corticosterone response
ethanol
morphine
neonates
pituitary-adrenal system
prenatal exposure
Open field activity, 1
prenatal ethanol
stimulus reactivity
Opiate kappa receptors, 249
ethanol
hypothermia
Opioid receptor antagonism, 39
drinking
drug interactions
ethanol addiction
Organ growth, 261
cell development
ethanol
perinatal exposure

Pentobarbital, 303
drinking
drug interactions
ethanol
methadone
pimozide
Peptide, 163
glutathione
Perfused liver, 163
acetaldehyde
acetate
antioxidant sensitive respiration
diethylamaleate treatment effects
ethanol
fasting effects
glutathione depletion
Perinatal exposure, 261
cell development
ethanol
organ growth
Pharmacological intervention, 113
alcohol withdrawal
carbamazepine
side effects
Phenobarbital, 153
γ-glutamyl transpeptidase
in utero
Phenotypes, 11
alcoholism
biological markers
glyoxalase I
human studies
Pimozide, 303
drinking
drug interaction
ethanol
methadone
pentobarbital
Pituitary-adrenal system, 255
corticosterone response
ethanol
morphine
neonates
ontogeny
prenatal exposure
Poikilothermia, 273
$Ca^{++}$-channel blockade
calcium antagonism
ethanol
thermoregulation
Postnatal development, 169
alcohol, maternally fed
ethanol vapor
lactation
Preferred alcohol concentration, 383
alcohol
drinking
monkeys
naltrexone
voluntary alcohol intake
Pregnancy, 145
dietary interrelationships
ethanol
zinc
Prenatal exposure
alcohol, 201, 255
corticosterone response, 255
morphine, 255
neonates, 255
nose poking, 201
ontogeny, 255
open field activity, 1
pituitary-adrenal system, 255
stimulus reactivity, 1
Pre-pregnancy alcohol, 19
alcohol preference
lactation
Protein kinase, 233
calcium-calmodulin phosphorylation
ethanol

Rats, alcohol-preferring, 331
ethanol
scheduled availability
voluntary consumption
Related conditions, 97
affective disorders
alcoholism
lithium orotate
REM-sleep deprivation, 377
ethanol intake
monoaminergic neurons
Respiration, 5
blood-gas concentration
body temperature
ethanol

Salsolinol, 371
alcohol
alcohol withdrawal
catecholamines
human studies, alcoholics
individual differences
urinary secretion
Scheduled availability, 331
ethanol
rats, alcohol-preferring
voluntary consumption
Schedule-induced polydipsia
alcohol, 361
alcohol dependence, 33, 361
alcohol preference, 361
water-electrolytic status, 361
Serotonin, 345
aging
alcohol
chronic alcohol intoxication
dopamine
inbred strains
strain differences
tolerance
Serum catecholamines, 351
acetaldehyde
cold exposure
ethanol
guinea pigs
Serum levels, 357
angiotensin converting enzyme (ACE)
human studies, alcoholics
Sex differences
age differences, 89
alcohol, 185
alcohol dehydrogenase, 131
alcoholism, 89
aldehyde dehydrogenase, 131
blood alcohol concentration, 185
carbamazepine, 131
ethanol, 131
grief awareness, 89
human studies, 89
lactate dehydrogenase, 131
length of illness, 89
loss identification, 89
microencephaly, 185
third trimester equivalent, 185
Sexual activity, 193
alcohol
consumption patterns
human studies, females
marihuana
temporal corcordance
Side effects, 113
alcohol withdrawal
carbamazepine
pharmacological intervention
Sleeping time, 69
divalent cation
ethanol
Sleep-wake patterns, 77
alcohol
dose-differences
drinking
strain differences
Social drinkers, 175
alcoholism
drinking practice
human studies, male
neuropsychological performance
Stimulus reactivity, 1
open field activity
prenatal ethanol
Strain differences
age differences, 291
aging, 345
alcohol, 77, 291, 345
central cholinergic neurotransmission, 291
chronic alcohol intoxication, 345

dopamine, 345
dose-differences, 77
drinking, 77
inbred strains, 291, 345
long-term intoxication, 291
serotonin, 345
sleep-wake patterns, 77
tolerance, 345
Stress, 299
enriched environment
ethanol
ulcer
voluntary ethanol consumption
Striatal dopamine, 15
drinking
ethanol
Subcellular fractionation, 205
baboons
liver ALDH, baboons

Taste aversion, 55
ethyl alcohol
neural responsivity
Temporal concordance, 193
alcohol
consumption patterns
human studies, females
marijuana
sexual activity
Teratogenic effects, 101
developing fetus
ethanol
lithium
Thermoregulation, 273
$Ca^{++}$-channel blockade
calcium antagonism
ethanol
poikilothermia
Thermoregulation, autonomic, 339
alcohol
ambient temperature, preferred
colonic temperature
evaporative water loss
metabolic rate
thermoregulation, behavioral
Thermoregulation, behavioral, 339
alcohol
ambient temperature, preferred
colonic temperature
evaporative water loss
metabolic rate
thermoregulation, autonomic
Third trimester equivalent, 185
alcohol
blood alcohol concentration
microencephaly
sex differences
Time effects, 23
cerebral metabolism
dose effects
ethanol
Tolerance
aging, 345
alcohol, 345
chronic alcohol intoxication, 345
dopamine, 345
ethanol diuresis, 283
inbred strains, 345
norepinephrine, 283
serotonin, 345
strain differences, 345
Trauma questionnaire, 287
alcohol abuse detection
alcoholism diagnosing
human studies
Tricyclic antidepressants, 135
blood serum
carbamazepine
electrochemical detection
high pressure liquid chromatography (HPLC)

Ulcer formation, 299
enriched environment
ethanol
stress
voluntary ethanol consumption
Urinary salsolinol, 215
acetaldehyde levels
aldehyde dehydrogenase (ADH) levels
ethanol
human studies
Urinary secretion, 371
alcohol
alcohol withdrawal
catecholamines
human studies, alcoholics
individual differences
salsolinol

Vagotomy, 317
acetaldehyde
apnea
bradycardia
cardiorespiratory inhibitory reflex
hypotension
intravenous administration
Voluntary ethanol consumption
alcohol, 383
drinking, 383
enriched environment, 299
ethanol, 299, 331
monkeys, 383
naltrexone, 383
preferred alcohol concentration, 383
rats, alcohol-preferring, 331
scheduled availability, 331
stress, 299
ulcer formation, 299

Water-electrolyte status, 33
alcohol dependence
schedule-induced polydipsia

Zinc, 145
dietary interrelationships
ethanol
pregnancy


## AUTHOR INDEX


Aalto, J., 73, 77, 377
Abel, E. L., 201
Adachi, J., 215, 371
Adams, M. K., 131
Agarwal, D. P., 227
Akiyama, K., 69
Albrecht, R. F., 23
Aldrich-Castanik, L., 309
Anton, R. F., 19
Arai, M., 357
Araujo, A. C. P., 233

Beaman, C. M., 39
Becker, H. C., 19
Besnard, F., 291, 345
Bockel, R., 11
Boismare, F., 15
Borg, S., 383
Borowski, T. B., 299
Branch, B. J., 255
Brugere, S., 317
Butler, D., 113, 131
Butters, N., 323

Chan, A. W. K., 309
Chao, K.-L., 169
Charrault, A., 11
Chretien, P., 15
Cogan, D. C., 145
Crovi, S. I., 273
Czirr, S. A., 39, 303

Daoust, M., 15
Di Lorenzo, P. M., 55
Dintcheff, B. A., 201
Doffoel, M., 11
Dombrowski, G. J., Jr., 169

Ebel, A., 291, 345
Ebihara, Y., 357

Falk, J. L., 33, 361
Fuhrmann, G., 291, 345
Fukunaga, T., 215, 371

Gallo, P. V., 261
Garcia, J., 55
Garcia, K., 153
Gatto, G. J., 331
Glavin, G. B., 299
Goedde, H. W., 227
Gordon, C. J., 339
Govoni, S., 233
Gray, S. L., 1
Griffin, M. L., 193
Guagno, L., 233

Heinrich, H. C., 227
Hilakivi, L., 77
Hoffman, W. E., 23
Holmes, R. S., 205
Hubbell, C. L., 39, 303
Hunter, G. A., 39
Huttunen, P., 351

Iimura, K., 69
Imamichi, H., 371
Ishii, H., 357

Kempf, E., 291, 345
Kempf, J., 291, 345
Kiefer, S. W., 27, 55
Kiianmaa, K., 377
Kivikataja, R.-L., 63
Kneer, J., 227
Kogame, M., 215
Kopp, P., 11
Kortelainen, M.-L., 351

Lane, L. A., 255
Langan, M. C., 309
Lapinlampi, T., 351
Lawrence, G. J., 27

LeCann, N. C., 39, 303
Ledig, M., 11
Lehmann, W. D., 227
Leong, F. W., 309
Leonhardt, R., 227
Lex, B. W., 193
Lhuintre, J. P., 15
Li, T.-K., 331
Lindros, K. O., 63
Lumeng, L., 331

McBride, W. J., 331
McGovern, T. F., 89, 93, 95
McGrath, J. J., 157

Mack, C. M., 273
Mandel, P., 11
Mardones, J., 181
Masur, J., 223, 287
Mayer, S., 11
Means, L. W., 1
Medlin, C. W., 1
Mello, N. K., 193
Mendelson, J. H., 193
Messiha, F. S., 81, 107, 113, 131, 135
Metzler, C. W., 27
Miletich, D. J., 23
Mizoi, Y., 215, 371
Monteiro, M. G., 223, 287
Moore, N., 15
Mossberg, R., 383
Mudar, P. J., 303
Murphy, J. M., 331
Murray, K. A., 5
Myers, R. D., 273, 383

Nace, E. P., 83
Naito, T., 215, 371
Nelson, L. R., 255
Ninomiya, I., 215, 371
Nogueira Pires, M. L., 287

Okuno, F., 357
Ostrovsky, Yu. M., 239

Parsons, O. A., 175
Penetrante, M. L., 309
Penna, M., 317
Pierce, D. R., 185, 269
Pillai, N. P., 249
Pohorecky, L. A., 283
Poland, R. E., 255
Poldrugo, F., 367

Randall, C. L., 19
Rating, D., 227
Rawat, A. K., 101, 139
Reid, L. D., 39, 303
Reyes, E., 153
Rezvani, Amir H., 273
Rice, A. G., 55
Rius, R. A., 233
Rockman, G. E., 299
Ross, D. H., 249

Saavedra, A., 317
Saligaut, C., 15
Salmon, D. P., 323
Sandoval, D., 153
Sartori, H. E., 97
Schaeffer, K. W., 175
Schanley, D. L., 309
Schuckit, M., 323
Sharma, A., 101, 139
Shetlar, C. L., 145
Shetlar, M. R., 145
Shigeta, Y., 357
Snead, O. C., III, 367
Sparkman, G. W., 145
Stead, A. G., 339
Sutoo, D., 69
Suokas, A., 63
Swiatek, K. R., 169

Takagi, S., 357
Tampier, L., 181
Tang, M., 33, 361
Taylor, A. N., 255
Tongio, M. M., 11
Trabucchi, M., 233
Tsuchiya, M., 357

Ueno, Y., 371

VandeBerg, J. L., 205
Videla, L. A., 163
Villena, M. I., 163

Waller, M. B., 331
Wang, M. M., 145
Weinberg, J., 261
West, J. R., 185, 269
White, W. J., 5
Wolfe, J., 153

Zagon, I. S., 5
Ziessel, M., 11